## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claim 1 (previously presented): A separation matrix comprising

- (a) a porous support; and
- (b) ligands including one or more sulphonamides wherein an R group of the sulphonyl is an aliphatic compound; wherein said ligands are immobilized, optionally via spacer arms, on said porous support.

Claim 2 (previously presented): The matrix of claim 1, wherein the sulphonamide is coupled to the porous support via its nitrogen.

Claim 3 (previously presented): The matrix of claim 1, wherein the sulphonamide is coupled to the porous support via its sulphur.

Claim 4 (previously presented): The matrix of claim 1, wherein the R group is a methyl group.

Appl. No. 10/584,714 Amendment dated June 11, 2009 Reply to Office action of May 11, 2009

Claim 5 (previously presented): The matrix of claim 1, wherein the nitrogen of the sulphonamide(s) is a primary or secondary amine.

Claim 6 (previously presented): The matrix of claim 1, wherein the ligands are monoamines.

Claim 7 (previously presented): The matrix of claim 1, wherein the ligands are polyamines.

Claim 8 (previously presented): The matrix of claim 7, wherein each polyamine comprises two to six amines.

Claim 9 (previously presented): The matrix of claim 1, wherein the ligands are present as repetitive units of a polymer immobilised to the support.

Claim 10 (previously presented): The matrix of claim 9, wherein the polymer is a polyethylene imine.

Claim 11 (previously presented): The matrix of claim 9, wherein the polymer exhibit two or more different ligand groups.

Claim 12 (previously presented): The matrix of claim 1, wherein the ligands are aliphatic

compounds.

Claim 13 (previously presented): The matrix of claim 1, wherein the support is a cross-

linked polysaccharide.

Claim 14 (withdrawn): A chromatography column packed with the separation matrix of

claim 1.

Claim 15 (withdrawn): The chromatography column of claim 14, which is substantially

sterile.

Claim 16 (withdrawn): The chromatography column of claim 14, which is a disposable

column.

Claim 17 (withdrawn): A process of preparing a matrix for separation of antibodies,

which method comprises a first step of immobilising amines and/or polyamines to a

porous support and a subsequent step of sulphonylating said amines to provide aliphatic

sulphonamide ligands.

Claim 18 (withdrawn): A process of preparing a matrix for separation of antibodies,

which method comprises a first step of activating a porous support and a subsequent step

Page 4 of 8

Reply to Office action of May 11, 2009

of attaching sulphonamides to the activated sites via their sulphurs to provide aliphatic

sulphonamide ligands.

Claim 19 (withdrawn): A method of isolating antibodies from a liquid, which method

comprises the steps of

(a) providing a liquid that comprises at least one antibody;

(b) contacting said liquid with a separation matrix, which comprises one or more

aliphatic sulphonamide ligands, to adsorb one or more antibodies to said matrix;

and, optionally,

(c) passing an eluent over said matrix to release one or more antibodies; and

(d) recovering at least one antibody from a fraction of the eluent.

Claim 20 (withdrawn): The method of claim 19, wherein the liquid provided in step (a)

additionally comprises one or more other proteins.

Claim 21 (withdrawn): The method of claim 19, wherein the separation matrix of step (b)

is provided in a chromatography column.

Claim 22 (withdrawn): The method of claim 19, wherein the separation matrix of step (b)

is as defined in claim 1.

Page 5 of 8

Claim 23 (withdrawn): The method of claim 21, wherein step (b) is performed at a close

to neutral pH.

Claim 24 (withdrawn): The method of claim 19, wherein step (c) is a gradient elution

performed by adding an eluent of decreasing salt concentration to the separation matrix.

Claim 25 (withdrawn): The method of claim 19, wherein step (b) is performed at a pH of

or above neutral and step (c) is a gradient elution performed by adding an eluent of

decreasing pH.

Claim 26 (withdrawn): The method of claim 19, wherein the antibodies recovered in step

(d) are human or humanised antibodies.

Claim 27 (withdrawn): The method of claim 19, wherein the antibodies recovered in step

(d) are immunoglobulin G (IgG).

Claim 28 (withdrawn): The method of claim 19, further comprising determining the

amount of isolated antibody spectrophotometrically.